

BEAT THE HEAT

RECOGNIZE THE SYMPTOMS OF HEAT ILLNESS

As the sun shines brightly and outdoor activities dominate weekend plans, people become even more vulnerable to heat-related injury. The most common heat disorder is heat exhaustion. Heat exhaustion is the inability to continue to exercise or do activities in the heat. If not recognized and treated promptly, heat exhaustion can develop into heat stroke. While heat stroke can be fatal, recognizing the symptoms and responding quickly can easily eliminate potential hospital visits.

“Heat stroke is an avoidable outcome that too many people suffer from each year,” explains the Kansas Association of Osteopathic Medicine (KAOM). “Everyone should be aware of the subtle signs of heat exhaustion.”

According to the most recent Gatorade Sports Science Institute report, there are several causes for heat stroke: dehydration, heat and humidity, fitness and overmotivation.

“While the easiest symptom to detect is dehydration, many people don’t recognize how quickly dehydration can occur,” cautions KAOM.

In high temperatures, a person can sweat between one and two liters an hour. But in general, individuals drink far less than they sweat. After losing only two percent of a person’s body weight, physical performance is impaired.

“This means that a 150-pound person can become dehydrated in less than two hours, at which point they would experience a decrease in mental sharpness, willpower, muscle power and endurance,” explains KAOM.

KAOM also cautions against what he believes to be the most common misconception about this heat disorder—that *hydration alone* prevents heat stroke.

“Although hydrating is critical, it is not the ‘end all be all’ in preventing heat stroke,” KAOM says. “Even if you feel as though you are drinking enough fluid, you may still be at risk. By the time you develop the thirst, you are already behind on your fluids.”

Body temperature is also a significant factor in heat stroke. The body has an internal thermostat to prevent dramatic increases in temperature. When temperatures rise, blood flow is diverted from the core of the body to the surface, or skin, where it can easily be cooled. The best method of cooling is evaporation of sweat on the skin. If dehydration has occurred, sweating effectiveness is significantly decreased. In high humidity, the surrounding moisture of the air absorbs little sweat, and evaporation is limited. In either case, the heat is trapped within the body and the temperature increases. In heat stroke, the core body temperature rises to 105 degrees Fahrenheit or greater! Remember, normal body temperature is 98.6 degrees Fahrenheit. Keep in mind what type of clothing to wear while outside exercising. Wear clothing that allows easy evaporation.

Another important factor to take into consideration when avoiding heat stroke is one’s fitness level.

“Weekend warriors beware! Before attempting more intense physical activities in the summer, make sure you are relatively fit and heat-fit,” explains Dr. *insert last name*.

“While most people understand what physical fitness requires, heat-fitness is also extremely important to avoid heat disorders.”

Heat-fitness is the individual’s adaptation to the surrounding temperatures. People should allow at least two weeks within a climate to adapt, before partaking in intense physical activity. This time allows the body to hold onto water and salt more efficiently and increase blood volume so the heart pumps more blood at a lower heart rate. Once a

Health for the Whole Family

person has achieved heat-fitness, he or she will sweat sooner, in greater volume, and over a wider body area, so he or she stays cooler.

Lastly, an individual that is doing too much too fast or trying to endure too long can be at risk for a heat illness or eventually, heat stroke.

“While a winning attitude is always better for the team, on a hot day the never-quit mentality can work against you,” says KAOM. “Even though we are all taught that good athletes endure and push through any physical pain—this mentality may cause you to ignore the warnings of heat stroke.”

KAOM strongly advises taking quick action if you or someone with you is suffering from heat stroke.

“Cool first, transport second”, KAOM explains. “Send the heat stroke victim to the hospital after cooling.” With fast cooling, recovery rates increase. In fact, fast cooling can allow victims to walk away with minimal, if any, negative consequences.

“But remember, the best treatment for any heat illnesses is prevention,” KAOM explains. “Hydration and exercising in the right condition is the key to preventing heat disorders.”

Injury prevention is just one element of the spectrum of care that osteopathic physicians provide. As complete physicians, D.O.s are able to prescribe medication, perform surgery and can be found practicing in all specialty areas of medicine. D.O.s can also use their hands to help diagnose and treat injury and illness and to encourage the body’s natural tendency toward good health through the use of Osteopathic Manipulative Treatment (OMT).